

Patent Claims

1. A method for transferring data streams (e1, e2, e31, e32), having different data transmission rates, between a first and second data transmission unit (MUXE, MUXA),

characterized in that the data streams (e1, e2, e31, e32) to be transferred are inserted into data frames (DR1...3) each having the same data volume and the same data transmission rate.

2. The method as claimed in claim 1, characterized in that a plurality of data streams (e31, e32) each having the same data transmission rate are combined and inserted into the same data frames (DR1...3).

3. The method as claimed in claim 1 or 2, characterized in that the data transmission rate of the data frames (DR1...3) is adapted to the data transmission rates of the data streams (e1, e2, e31, e32) using stuffing information (S1, S2, C1, C2, R) which is respectively arranged in the data frames (DR1...3).

4. The method as claimed in claim 3, characterized

- in that, in order to coarsely adapt the data rates, at least some of the stuffing information (R) is inserted as fixed stuffing bits into the data frames (DR1...3),

and/or

- in that, in order to coarsely adapt the data rates, at least some of the stuffing information (S1, S2, C1, C2) is inserted into

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the data frames (DR1...3) using a variable stuffing method.

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5. The method as claimed in one of the preceding claims, characterized in that a plurality of formed data frames (DR1...3) are multiplexed to form a multiplex signal (as).

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6. The method as claimed in claim 5, characterized in that frame-detection and overhead information (RKW, OH) is added to the multiplex signal (as).

10 7. The method as claimed in one of the preceding claims, characterized

- in that the data frames (DR1...3) each have six subframes (UR1...6),

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- in that a first and second stuffing check bit (C1, 2) are arranged at the start of each of the second to sixth subframes (UR2...6),

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- a first and second variable stuffing bit (S1, 2) following the first and second stuffing check bits (C1, 2) are arranged in the sixth subframe (UR6).

25 8. The method as claimed in one of the preceding claims, characterized in that the data streams (e1, e2, e31, e32) have a data transmission rate

of 2.666057 Gbps or

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of 2.488320 Gbps or

of 1.250 Gbps.

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9. The method as claimed in claim 8, characterized in that the data frames (DR1...3) have a data volume of 1360 bits.

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10. The method as claimed in claim 9, characterized

- 5 - in that 225 data bits (225D) of the 2.666057 Gbps data signal (e1) are transferred as user data (nd) in the first to fifth subframes (UR1) of the data frame (DR1), and
- 10 - in that 223 data bits (223) of the 2.666057 Gbps data signal (e1) are transferred as user data (nd) in the sixth subframe (UR6) of the data frame (DR1).

11. The method as claimed in claim 9, characterized

- 15 - in that 15 times 14 data bits (14D) of the 2.488320 Gbps data signal (e2) as user data (nd) followed by a fixed stuffing bit (R) are alternately transferred in each of the first to fifth subframes (UR1...5) of the data frame (DR2), and
- 20 - in that 12 data bits (12D) of the 2.488320 Gbps data signal (e2) are transferred as user data (nd) followed by a fixed stuffing bit (R) and
- 25 - 14 times 14 data bits (14D) of the 2.488320 Gbps data signal (e2) as user data (nd) followed by a fixed stuffing bit (R) are alternately transferred
- 30 in the sixth subframe (UR6) of the data frame (DR2).

12. The method as claimed in claim 9, characterized

- 35 - in that fourteen data bit groups (14D) each having a data volume of fourteen bits and each followed by a fixed stuffing bit (R), and

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- a data bit group (15D) having a data volume of fifteen bits

5 are inserted into each of the first to fifth subframes (UR1...5) of the data frame (DR3),

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- in that a data bit group (12D) having a data volume of twelve bits and followed by a fixed stuffing bit (R),
 - 5 - thirteen data bit groups (14D) each having a data volume of fourteen bits and each followed by a fixed stuffing bit (R), and
 - 10 - a data bit group (15D) having a data volume of 15 bits
- are inserted into the sixth subframe (UR6) of the data frame (DR3), and
- 15 - in that data bits of a first and second 1.250 Gbps data signal (e31, e32) are transferred, at least partially bit interleaved as user data (nd) are transferred in the data bit groups (12D, 14D, 15D).

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